DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

E00010LA
Revision 2

HONEYWELL
AS907-1-1A

April 14, 2004

TYPE CERTIFICATE DATA SHEET NO. E00010LA

The engine model described herein conforming to this data sheet (which is part of Type Certificate No. E00010LA) and other approved data on file with the Federal Aviation Administration, meet pertinent aircraft data sheets and applicable portions of the Federal Aviation Regulations provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

TYPE CERTIFICATE (TC) HOLDER: Honeywell International Inc.
111 South 34th Street
Phoenix, AZ 85034

Model: AS907-1-1A

Type: Turbofan: One stage fan, four stage axial flow high pressure compressor, one stage centrifugal high pressure compressor, annular combustor, two stage high pressure turbine, and three stage low pressure turbine.

Static Thrust Ratings:
(See NOTE 4 and NOTE 12)

Model	Max. Continuous at Sea Level, up to ISA +15ºC, lbs.	Takeoff at Sea Level, up to ISA +20ºC, lbs. (See NOTE 10)
AS907-1-1A	6,929	6,944

Controls: Fuel control and power management are controlled by a Full Authority Digital Electronic Control (FADEC) system which features a dual-channel electronic control in the form of two electronic control units (ECUs). The hardware and software configurations of this system and the associated engine hydromechanical unit with integral fuel pump are controlled by an approved engine equipment list. (See NOTE 13).

Principal Dimensions: Refer to the engine installation drawing for dimensions and center of gravity location.

Weight, Dry, Pounds (maximum):

Model	Lbs.
AS907-1-1A	1,534

The engine weight includes all components of the basic engine as defined by the approved Engine Equipment List. Components that are certified as part of the aircraft under Title 14 CFR part 25, which are mounted on the engine, are not included in the basic weight.

Fuel: Fuels conforming to Honeywell International Inc. Specifications EMS53111 (Jet A Type), EMS53112 (Jet A-1 and JP-8 Types, EMS53313 (Jet B and JP-4 Types) and EMS53116 (JP-5 Types). Refer to approved fuel types (see NOTE 12).

No fuel control adjustment is required when changing from primary to alternate fuels.

Refer to engine installation manual for approved fuel additives (see NOTE 12).

Oil: Oil conforming to Honeywell International Inc. Specification EMS53110.

Certification Basis: Title 14 CFR part 33, effective February 1, 1965, as amended by 33-1 through 33-20, effective December 13, 2000 and Part 34 dated September 10, 1990 as amended by 34-1 through 34-3, effective February 3, 1999.

Model	Date of Application	Type Certificate Issued
AS907-1-1A	November 4, 1998	June 25, 2002

Production Basis: Production Certificate No. 413, issued March 4, 1965. Reissued Production Certificate No. 413NM to Honeywell International Inc. on January 25, 2000.

NOTE 1. Maximum permissible operating speeds for the low and high-pressure rotors of the engine are as follows:

	Low Pressure Rotor (N1) RPM	High Pressure Rotor (N2) RPM
Maximum Continuous	9,723	27,319
Takeoff	9,812	27,568
Maximum Transient (20 seconds)	9,957	28,075

NOTE 2. Temperature Limits:
Maximum indicated Interturbine Temperature (ITT) Limits: ºF (ºC)

Model	Max. Continuous	Takeoff (See NOTE 10)	Starting (Ground/Air)	Transient (20 Seconds)
AS907-1-1A	1,702 (928)	1,735 (946)	*	1764 (962)

* Varies with N2 speed, refer to engine installation manual (see NOTE 12).

Maximum Oil Inlet Temperature Limits:

Continuous, °F (°C)	Transient, (2 Minutes) °F (°C)
280 (138)	310 (154)

External engine components maximum temperature (limiting temperature of specific components) is as specified in the engine installation manual (see NOTE 12).

Operation at an engine fuel inlet temperature as high as 185ºF (85ºC) with a vapor volume to liquid volume ratio (V/L) equal to 0.45, and as low as -65ºF (-54ºC) with fuel at a viscosity of 12.0 centistokes or less during starting is approved.

NOTE 3. Fuel and Oil Pressure Limits:

Fuel pump inlet pressure:	minimum	5 psi above true vapor pressure
	maximum	35 psig
Oil pressure:	Oil pressure is not regulated and pressure limits vary with N_2 speed. Refer to engine installation manual (see NOTE 12).	

NOTE 4. The ratings are based on static test stand operation and under the following conditions:

(a) No loading of aircraft accessory drives.
(b) No aircraft compressor bleed air extraction.
(c) Fan exhaust and turbine exhaust nozzles conforming to Honeywell International Inc. Drawings N10780-1 and N10781-1.
(d) Bellmouth inlet conforming to Honeywell International Inc. Drawing 5837800-1.
(e) Dry inlet air.
(f) No exhaust nozzle back pressure.

NOTE 5. Accessory Drive Provisions:

Accessory Drive	Drive Type (one each)	Internal Spline Configuration	RPM and Rotation Facing Drive End	Note (b) Accessory Max. Torque (lb-in)			Maximum Weight (pounds)	Overhung Moment (lb-in)
				Tc	To	Ts		
Generator/ Alternator D30*	AS468B-AV1 modified as follows: RPM, torques, accessory weight and moment as shown	AS468B	13,665 Note (a) CW	242	363	1600	34.7	128.5
Hydraulic Pump D10*	AS468B-AV1 modified as follows: RPM, torques, accessory weight and moment as shown	AS468B	5,974 Note (a) CW	250	375	1544	22.3	103.9

CW = Clockwise To = Torque Overload (5 min. per 4 hr. period)
Tc = Continuous Torque Ts = Static Torque

* Accessory pads are identified by these symbols on the installation drawing.

Notes: (a) Drive speeds are based on a 100% design HP rotor speed of 28,100 rpm.
(b) Total combined accessory power extraction limits are specified in the engine installation manual (see NOTE 12).

NOTE 6. For aircraft compressor bleed airflow limits, refer to the engine installation manual (see NOTE 12).

NOTE 7. Fuel from the engine pump is extracted to drive jet or turbine pumps in the aircraft fuel system (motive flow). Refer to the engine installation manual (see NOTE 12).

NOTE 8. The engine meets FAA requirements for operation in icing conditions within the envelope defined in Title 14 CFR part 25, Appendix C.

NOTE 9. Certain engine parts are life-limited. These limits are included in the engine Light Maintenance Manual, Airworthiness Limitations Section.

NOTE 10. The normal 5-minute takeoff time limit may be extended to 10 minutes for engine out contingency.

NOTE 11. Power setting, power checks and control of engine thrust output in all operations are based on low-pressure rotor speed (N_1). Speed sensors are included in the engine assembly for this purpose.

NOTE 12. For additional performance, authorized operation and installation detailed information, refer to FAA approved sections of the engine installation manual as follows:

Model AS907-1-1A: IM-8014

NOTE 13. Time Limited Dispatch (TLD): The engine control system has been approved for TLD operations. Airworthiness limitations pertaining to the maximum approved dispatch intervals and maintenance requirements of the engine control system are specified in the engine Light Maintenance Manual, Airworthiness Limitations Section.

NOTE 14. Recommended engine inspection intervals are included in the engine Light Maintenance Manual, Chapter 5.

NOTE 15. The engine type design does not include a thrust reverser. Considerations for the installation of a thrust reverser are contained in the engine installation manual (see NOTE 12). The engine has demonstrated compatibility with the following thrust reversers:

	PART NUMBERS	
MANUFACTURER	LEFT HAND	RIGHT HAND
Hurel-Hispano	13A025-03-OG	13A026-02-OG
Hurel-Hispano	13A012-00-OG with installation kit 13A016-00-OG	13A013-00-OG with installation kit 13A017-00-OG

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